Jo's Alternative Desktop: ROX

RISC rocks

Not satisfied with a window manager and overawed by KDE or GNOME? Just use your window manager to create an environment! BY JO MOSKALEWSKI

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Linux may look back with pride at its ten year history, but there is one thing that immediately strikes you, if you venture off the beaten track of desktop environments such as KDE and GNOME: Linux just was not designed as a quick seller by marketing strategists, but by programmers interested in developing their own ideas based on a trusted workhorse. This can make one or two things seem strange to recent converts. Suddenly you are required to know what files you possess, what purpose they serve and even the best place to store them.

The User Perspective

Demands for a more "intuitive" interface increased and continue to increase: computers should be easy to use. Normal users are not interested in files but in the availability of the information they require.

Of course there is some argument as to what constitutes effective use of a (Linux) computer ranging from the purists' prompt-based approach to banning use of the keyboard in favor of the mouse. In the long run the Unix principle of "Everything is a file" remains. If you need to access a floppy drive, for example, you simply look for */dev/fd0* and can access the medium just like a single file. Also system information is always processed in file format, as was evident in our previous deskTOPia article on *ProcMeter3* [1].

What this boils down to is that an intuitive desktop must primarily provide easy file manangement – whether you are transferring files to a floppy, creating a link on the desktop or a program icon in the Start menu. Drag & Drop is normally just a file operation. If you look more closely, you normally discover a task ideally suited to a file manager.

Helping Hands

The file manager is thus a core component of any modern desktop environment. A file manager with a good range of features can supplement a window manager and hopefully provide a desktop environment that supports Drag & Drop, coordinated file management, **session management** and desktop icons.

deskTOPia has already looked into two special file managers of this kind: *DFM* [2] and *XFTree*, both in the context of our article on the *XFce* desktop environment [3]. The *ROX-Filer*, the core component of the ROX desktop, offers fuller features and is easier to use, although this does place heavier demands on the supporting window manager. The window manager needs GNOME compatiblity to leverage the full functionality, although the ROX desktop can be used with more basic window managers.

Tried and Trusted, but not obsolete

If you are looking for ROX on the Web, try *http://rox.sourceforge.net/*. This address should provide you with the latest version. The subscription disk contains the latest stable release, whereas the newer version on the ROX site has been ported to GTK+ 2 and is available as a *development release* (i.e. intended for developers only and not necessarily stable or bug-free). However, deskTOPia does not typically investigate experimental file managers, so we intend to concentrate on the stable version in this issue…

So far ROX has been written and maintained for the most part by Thomas Leonard, who found Linux lacking in some functions that his former operating system – *RISC OS* – offered. The name actually expands to "*RISC OS* on *X*"; the software is freely available under the *General Public License* (GPL).

Installation

Every major distribution includes ready to run packages that can be installed

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GLOSSARY

Session Management: *In the context of a desktop environment this generally means keeping track of the programs a user has launched to provide the user access to a stored desktop configuration after logging off and back on.*

using the distribution's own resources. But the sources are also available and fairly simple to install (Box 1).

ROX is comprised of two packages: The so-called *Base* package creates the environment required by the ROX package proper. It contains the information required by the ROX filer on *MIME types* (which you may have read about in the last issue of deskTOPia[4]) and their corresponding icons, and must be installed first. The ROX package proper contains the file manager, *ROX filer*, which provides complete desktop functionality.

Rules and Regulations

After installing both packages you can use the *rox* command to launch the file manager and open a simple file manager window (Figure 1). Left-click a file to execute it; if the file is not executable, ROX will launch a suitable application and pass the file to it. Clicking on a directory will change to that directory.

If you use the center button on the mouse instead of the left button, the ROX filer terminates after performing the specified task. Directories are an exception to this rule and will instead be displayed in a new ROX filer window (i.e. directories are linked to ROX).

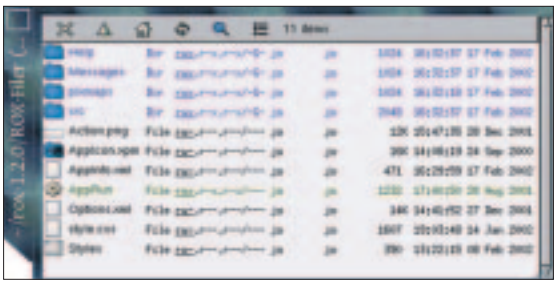

Figure 1: ROX filer as a simple file manager

The third (right) mouse key opens a context menu that allows you to delete, rename, show the size, change file rights, assign a different icon, edit the MIME type or select *Options…*

Individual

The Options window that then appears (Figure 2) provides access to the complete range of ROX configuration options allowing you to select a language, configure the toolbox and even define a maximum window size (ROX filer dynamically adapts to the required size; empty space that occurs when displaying a single file is thus a thing of the past).

The Options provide buttons marked *OK*, *Apply* and *Save*: If you want to save your changes for future sessions, you should use the *Save* button to close the window instead of just clicking on *OK*.

Figure 2: Focussed Configuration – the Options

ROX filer can perform Drag & Drop tasks, allowing you to drag files from one ROX filer window to another – of course you can drag them to an editor or any other program that provides appropriate functions, or to a program icon.

Since moving multiple files in this way would be extremely time consuming, you can not only use the left mouse key to launch or move single files, but also drag a frame around multiple files to move these files as a group (Figure 3).

Bag of Tricks

Things start to get interesting when you use ROX filer to enhance the desktop and not just as a simple file manager. ROX provides you with so-called panels, (Start-) bars that attach to one of the four margins of the screen and make icons available.

You can attach a panel to each margin, assign various layouts to the panels, and name the layouts. If you want to attach actions and content to the left margin and call this panel *main*, you can use the following syntax to do so:

```
rox -l=main
```

Should you now need to remove the panel from the left margin, just tell ROX filer to place an unnamed panel at this location:

```
rox -l=
```

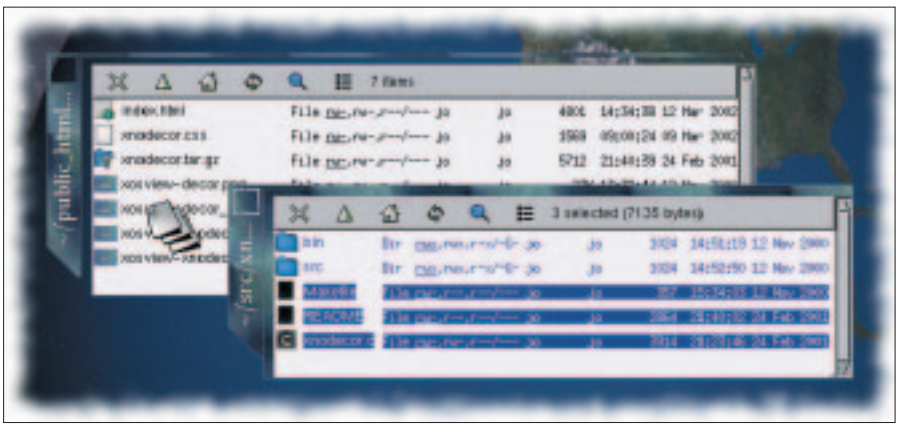

Figure 3: Copying Multiple Files

Box 1: ROX from the source

To create ROX from the source code you will need GTK+ Version 1.2 or later, including the developer package, (*gtk-dev*, *gtk-devel* or similar) and header files. You will also need to install the developer package for the *glib* library (often referred to as *libc6*) and the complete *libpng* library. These components should be available in any recent distribution. The whole installation procedure is extremely user-friendly. Ensure that you are the *root* user to extract both archives, change to the directories you have just created, and launch the *install.sh* scripts in those directories:

```
tar -xvzf rox-base-1.0.2.tgz
cd rox-base-1.0.2
./install.sh

tar -xvzf rox-1.2.0.tgz
cd rox-1.2.0
./install.sh
```

The typical *./configure*, *make* and *make install* commands are not required at this point as *install.sh* will perform these tasks. Users might appreciate this help, but it does make troubleshooting more difficult if things go wrong.

Since there is no such thing as an unnamend panel, the *main* panel will simply disappear.

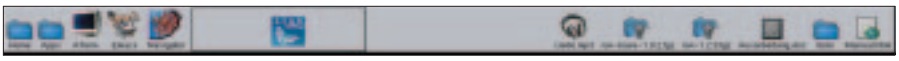

Figure 4: Adding StarOffice to a Panel

Construction Work

If you have recently edited a panel and used Drag & Drop to place a file from the file manager window in it, your action will have been stored in *~/Choices/ROX-Filer/pan_main* (you do not need to remember this) and is available for continued use. If you then decide to place the modified panel on the right margin, no problem:

```
rox -r=main
```

You use *l* for *l*eft and *r* for *r*ight, *t* to place a panel at the (*t*op) and *b* to place a panel at the (*b*ottom) margin. If you want to launch a new and empty panel, just create a panel with a different name. You can then drag directories and files of any type to the panel allowing you to utilize it more quickly (Figure 4).

Ranking

You have very little influence on the icons in your panels; they are organized from one corner of the panel towards the center – you get to decide which corner and can use your mouse to do so. However, you can change the order: To do so pick up an icon you want to move with the middle mouse key and drag it to the desired position. To completely remove an icon from a panel, use the right mouse key to open the menu (the left key will simply execute the file represented by the icon).

If your window manager insists on adding unwanted ornaments to your panels, just add *-o* to the command for launching ROX (*rox -o -t=main*). This will not take effect while any ROX windows are open. If your window manager still insists on drawing frames around your panels, although the *rox* command contains the option *-o*, you will probably have to live with the fact that the window manager does not permit framless windows.

Out of Room?

If you need more room for icons than your panels provide, simply use the desktop surface. In this case, you should ensure that your window manger is more or less GNOME compatible. This will prevent any mouse actions on the desktop being assigned to the window manager and allow them to be evaluated by ROX instead.

However, you may be able to place icons on the desktop, even though it is not GNOME compatible. To enable ROX for your desktop, also referred to as the *Pinboard*, you can launch the program with the *-p* flag. You will need to supply a name, which means that you can work with multiple sets of desktop icons:

```
rox -p=desktop
```

Your window manager must permit frameless and transparent windows for this option.

If you have compiled multiple panels or icon collections, you do not need to terminate one element before viewing the next element at the same position. Just add the element you require. If the desktop or panel position is already in use, the previous occupant will simply be replaced. To completely remove an element you will need to call an unnamed panel, as previously discussed.

For Ever and Ever

If you have come to like the ROX desktop, you will definitely want to launch the desktop automatically. The files *~/.xinitrc* (via *startx* at startup time), *~/.xsession* (graphic login via *kdm*, *gdm* or *xdm*), or *~/.Xclients* are normally responsible for the initial configuration of your user's X sessions. And this is typically the place to launch your window manager. You will need to start ROX before this happens (*icewm* in our example):

```
#!/bin/sh
rox -b=main
rox -p=desktop
exec icewm
```

The typical *&* at the end of a command line is not required for ROX – ROX happily retires to the background and releases the shell that spawned its process. But there is more! Even though ROX is called twice (once as a panel and once again for the desktop icons), it only launches a single instance. ■

INFO

[1] Jo Moskalewski: "A Thousand Words", Linux Magazine Issue 22, p70 ff

[2] Jo Moskalewski: "Background Menu", Linux Magazine Issue 17, p74 ff

[3] Jo Moskalewski: "XFCE", Linux Magazine Issue 13, p76 ff

[4] Jo Moskalewski: "The Right Type", Linux Magazine Issue 23, p86 ff

Figure 5: A Complete ROX Desktop